

# MERCURY WORKSHOP AGENDA

Final Meeting of the Scientific Review Committee  
for the CALFED Project

## **“An Assessment of Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed”**

Monday, September 16 and Tuesday, September 17, 2002  
Moss Landing Marine Laboratories, Main Seminar Room  
8272 Moss Landing Road, Moss Landing, CA

### **Monday, September 16**

- 8:30 Welcome and Introductions. Kenneth Coale, Director, Moss Landing Marine Laboratories
- 8:40 Goals of the Workshop. Scientific Review Committee

#### ***Summary Presentations of Project Results<sup>1</sup>***

- 9:00 Synthesis of Delta Studies. Gary Gill, Texas A&M University (Galveston, TX), Steve Schwarzbach, USGS (Sacramento, CA), Kenneth Coale and Mark Stephenson, Moss Landing Marine Laboratories (Moss Landing, CA), Chris Foe, Central Valley Regional Water Quality Control Board (Sacramento, CA), Darell Slotton, University of California (Davis, CA), Gary Heinz, USGS (Laurel, MD), and Jay Davis, San Francisco Estuary Institute (Oakland, CA)
- 9:30 Mercury Mass Balance for the Freshwater Sacramento-San Joaquin Bay-Delta Estuary. Chris Foe, Central Valley Regional Water Quality Control Board (Sacramento, CA)
- 10:00 Sediment-Water Exchange and Estuarine Mixing Fluxes in the San Francisco Bay-Delta Watershed. Gary Gill, Texas A&M University (Galveston, TX)
- 10:30 Break
- 10:45 Assessment of Methyl and Total Mercury in Delta Sediment. Wes Heim, Kenneth Coale and Mark Stephenson, Moss Landing Marine Laboratories (Moss Landing, CA)
- 11:15 Effects of Wetland Restoration on the Production and Bioaccumulation of Methyl Mercury in the Sacramento San Joaquin Delta, California. Darell Slotton, Shaun Ayres, Tom Suchanek, Ronald Weyland, Anne Liston, Chance MacDonald, Douglas Nelson, and Brenda Johnson, University of California (Davis, CA)
- 11:45 Mercury in Sport Fish From the Delta Region. Jay Davis, San Francisco Estuary Institute (Richmond, CA)
- 12:15 Lunch (to be provided in the meeting room)

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\* The name of the presenting author is underscored on presentations with multiple authors.

- 1:00 Pilot Transplant Studies with the Introduced Asiatic clam, *Corbicula fluminea*, to Measure Methyl Mercury Accumulation in the Sacramento-San Joaquin Delta Estuary. Chris Foe and Stacy Stanish, Central Valley Regional Water Quality Control Board (Sacramento, CA), Mark Stephenson, Moss Landing Marine Laboratories and California Department of Fish and Game (Moss Landing, CA)
- 1:30 Field Assessment of Mercury Exposure in Aquatic Birds in the Bay-Delta Ecosystem. Steve Schwarzbach, USGS (Sacramento, CA) and Terry Adelsbach, USFWS (Sacramento, CA)
- 2:00 Laboratory Assessment of the Hazards of Mercury to Reproduction in Aquatic Birds. Gary Heinz, USGS (Laurel, MD)
- 2:30 Synthesis of Cache Creek Studies. Joe Domagalski and Charles Alpers, USGS (Sacramento, CA), Darell Slotton and Thomas Suchanek, University of California (Davis, CA), Nicolas Bloom, Frontier Geosciences (Seattle, WA), and Ronald Churchill, California Division of Mines and Geology (Sacramento, CA)
- 3:00 Mercury and Methylmercury Concentrations and Loads within the Cache Creek Watershed, California, January 2000 through May 2001. Joe Domagalski and Charles Alpers, USGS (Sacramento, CA), Darell Slotton, Thomas Suchanek, and Shaun Ayres, University of California (Davis, CA)
- 3:30 Break
- 3:45 Mercury Bioaccumulation and Trophic Transfer in the Cache Creek Watershed, California, in Relation to Diverse Aqueous Mercury Exposure Conditions. Darell Slotton, Shaun Ayers, Thomas Suchanek, Ronald Weyand, and Anne Liston, University of California (Davis, CA)
- 4:15 Source Bioavailability and Mine Remediation Feasibility in the Cache Creek Watershed. Thomas Suchanek, USFWS (Sacramento, CA) and University of California (Davis, CA), Darell Slotton, Douglas Nelson, Shaun Ayers, Chance Asher, Ron Weyand, Anne Liston, and Collin Eagles-Smith, University of California (Davis, CA)
- 4:45 Solid Phase Mercury Speciation and Incubation Studies in or Related to Minesite Runoff in the Cache Creek Watershed. Nicolas Bloom and Eve Preus, Frontier Geosciences, Inc. (Seattle, WA)
- 5:15 Assessment of the Feasibility of Remediation of Mercury Mine Sources in the Cache Creek Watershed. Ronald Churchill and John Clinkenbeard, California Division of Mines and Geology (Sacramento, CA)
- 5:45 Engineering Evaluation and Cost Analysis of Alternatives to Remediate the Sulfur Creek Mercury District, Colusa and Lake Counties, California. Greg Roller, TetraTech (Sacramento, CA)
- 6:15 Adjourn

## **Tuesday, September 17**

- 8:00 Open Discussion of Project Results and Hypotheses from “An Assessment of Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed.” Moderated by Scientific Review Committee
- 10:00 Break
- 10:15 Direct Measurement of Microbial Mercury Cycling in Sediments of the San Francisco Bay-Delta. Mark Marvin-DiPasquale and Jennifer Agee, USGS (Menlo Park, CA)

### ***Summary Descriptions of Two Future Mercury Projects to be funded by CALFED***

- 10:45 Transport, Cycling, and Fate of Mercury and Monomethyl Mercury in the San Francisco Delta and Tributaries: An Integrated Mass-Balance Assessment Approach. Kenneth Coale, Moss Landing Marine Laboratories (Moss Landing, CA)
- 11:20 Evaluation of Mercury Transformations and Trophic Transfer in the San Francisco Bay/Delta: Identifying Critical Processes for the Ecosystem Restoration Program. Mark-Marvin DiPasquale, USGS (Menlo Park, CA)
- 12:00 Lunch (provided in the meeting room)

### ***Afternoon Session: Discussion of the Mercury Science Strategy for the Bay-Delta System and Watershed***

- 1:00 Development of the Mercury Science Strategy: Conceptual Framework, Constraints, and Goals. Jim Wiener, University of Wisconsin-La Crosse (La Crosse, WI)
- 1:30 Mercury in the Environment: Key Findings from Other Ecosystem Studies and their Implications for the Bay-Delta System and Watershed. Cynthia Gilmour, Academy of Natural Sciences, Estuarine Research Center (St. Leonard, MD), and David Krabbenhoft, USGS (Middleton, WI)
- 2:30 Public Input on the Mercury Science Strategy. Open Discussion
- 5:00 Adjourn